

AMENDMENTS TO THE CLAIMS**In the Claims:**

Please cancel claims 1-2 and amend claims 3-6 as follows:

1. (Cancelled).
2. (Cancelled).
3. (Currently Amended) The method as claimed in claim 4 ~~2~~, wherein the CVD TiN film is formed in thickness of 10 ~ 20 Å.
4. (Currently Amended) A method of forming a barrier metal in a semiconductor device, comprising the steps of:
 - a) patterning a porous film on a base layer to form a via hole through the porous film to expose at least part of the base film, the porous film comprising exposed pores on an exposed sidewall surface of the porous film;
 - b) depositing a thin CVD TiN film on the entire structure including the via hole;
 - c) implementing a plasma treatment process using $N_2 + H_2$;
 - d) repeatedly implementing the steps (b) and (c) in order to bury only the exposed pores formed on the exposed sidewall surface of the porous film with CVD TiN leaving a remaining exposed sidewall surface of the porous film substantially uncovered by CVD TiN; and
 - e) forming a barrier metal on the entire structure including the via hole.

5. (Currently Amended) The method as claimed in claim 6, wherein the one or more CVD-TiN MOTiN films ~~is~~ are formed in a total thickness of 10 ~ 20 Å.

6. (Currently Amended) A method of forming a barrier metal in a semiconductor device, comprising the steps of:

a) patterning a porous film on a base layer to form a via hole through the porous film to expose at least part of the base film, the via hole being defined by at least one sidewall of the porous film, the sidewall comprising exposed pores;

b) repeatedly implementing a process of depositing a thin MOTiN film and a plasma treatment process so that exposed pores at the sidewall ~~of the via hole~~ are buried by one or more MOTiN films leaving a remaining surface area of the sidewall that is free of exposed pores substantially free of MOTiN; and

c) forming a barrier metal on the entire structure including the via hole.